

WATER USE EFFICIENCY PROGRAM

GRANT APPLICATION

EL DORADO IRRIGATION DISTRICT
2890 Mosquito Road
Placerville, CA 95667

FEBRUARY 14, 2001

COVER SHEET

SCOPE OF WORK

B. SCOPE OF WORK

- (1) The El Dorado Irrigation District has been implementing a full Urban and Agricultural Best Management Practices (BMP) Water Conservation Program since 1995. This program was built on the foundation of its water conservation programs, which started during the 1976-1977 drought. One program that has been very successful is our residential ultra low flow (ULF) toilet replacement (rebate) program. This program provides up to \$75.00 per toilet for the replacement of 3.5, 5.0 or 7.0 gallon toilets with a ULF 1.6 gallon and below toilet. Since 1995, EID has replaced over 2,000 toilets under this program.

Although the program has had success, lower income customers, including fixed income seniors, the disadvantaged and Indian Tribe members have not availed themselves of the program due to the customer having to put funds forward to cover the remaining cost of the new toilet and its installation. With the cost of an average toilet costing about \$150.00 with tax and parts, and installation averaging about \$75.00, customers need \$150.00 more to allow purchase and installation. With already high utility costs including electricity, propane, wastewater and water costs, discretionary funds are not usually available to low income customers to dedicate for this purpose.

The proposal is to use grant funds to supplement EID's existing \$75.00 rebate program to allow a full rebate that would cover the entire cost of an average ULF toilet purchase and installation. Customers benefiting would be lower income homeowners, including fixed income seniors, renters that pay their own utilities, and Miwok Band tribal members of the Shingle Springs Rancheria.

- (2) The El Dorado Irrigation District is located in the watersheds of the South Fork of the American and Consumnes Rivers. All of its water comes from surface sources in both drainages. Ground water is not available as a backup source due to the fractured rock nature of the geology.

The District has limited water rights, primarily due to the development of water facilities by organizations outside the county. For this reason, the District has been conserving its water early in its history since ditch lining in the 1930's and water metering in the 1940's. The District's first water conservation plan was adopted in 1977, the first by an irrigation district in California. The District has long recognized its limited water supply and the need for water efficiency. That mind set continues today, with the recent adoption of its eighth water

conservation plan, the Urban Water Management Plan, 2000 Update. The District continues to implement full urban and agricultural Best Management Practices.

This grant proposal continues EID's goals to make the most efficient use of its limited water supply. Reducing demand side water use by replacing high water use toilets with ultra low flow toilets for all customers, especially the low-income customers in this proposal, is the goal.

This proposal meets CALFED's Water Use Efficiency Program objectives and goals. The grant will allow the acceleration of the ULF Toilet Replacement Urban BMP implementation by providing an opportunity for low-income customers to participate. The grant will supplement EID's existing BMP program by providing maximum local flexibility for implementation. The proposal is incentive-based with all or most of the ULF toilet purchases and installation covered by the program. And lastly, the toilet replacement is a proven and effective method to achieve high water use efficiency. On top of that, this proposal directly benefits low-income, disadvantaged persons including members of the Miwok Band tribal members of the Shingle Springs Rancheria.

The grant proposal meets the water efficiency commitment in the State required Urban Water Management Plan, 2000 Update, and the District's prepared USBR Water Conservation Plan required under the Central Valley Project Improvement Act (CVPIA).

The District is also a procedural agreement member of the Sacramento Water Forum in Foothill Water Interest stakeholder category. This proposal is in conformance with the objectives of the water conservation element of the Water Forum Agreement.

This grant proposal also meets the District's own Water Master Plan that includes a water conservation component as part of its water management strategy. Its 2030 goal is to save over 5,000 acre feet of water from conservation activities, including toilet rebates.

This water efficiency program also meets El Dorado County Water Agency goals and County General Plan goals for being water efficient.

- (3) The El Dorado Irrigation District has been implementing a highly successful Ultra Low Flow (ULF) Toilet Rebate Program since 1995, as part of its Urban Best Management Practices (BMP) Program. This program has achieved its success due to its low administrative overhead and easy customer access to the rebate process, and freedom to select their own toilet and installation. EID currently provides a \$75.00 rebate for the replacement of high water use 3.5, 5.0 and 7.0 gallon toilets with ULF toilets of 1.6 gallons or less. This normally leaves an average cost of about \$150.00 for the customer to put forth to purchase and install the toilet.

The extra \$150.00 becomes a barrier for low-income customers from participating in the program. With the already high utility costs for electricity, propane, water and wastewater rates, these low-income customers do not have the discretionary funds available to participate in this program. Thus, they are denied the ability to save on their water and wastewater costs with water efficient fixtures available to wealthier customers.

To solve this inconsistency in the program, it is proposed that EID's existing ULF Toilet Rebate Program be supplemented with grant funds to allow qualified low-income customers to purchase and install, at little or no cost, ULF toilets. The grant would provide \$150.00 per toilet, added to EID's existing \$75.00 rebate, for a total of \$225.00 per toilet. This cost will cover the average ULF toilet purchase, parts, sales tax and average \$75.00 installation cost.

The scope of the project is to provide four hundred toilets under this program over a two-year period. It is expected that 50 toilet rebates per quarter will occur, although customer demand will determine the timing of the rebates up to the program total of 400 toilet rebates.

U.S. Census data estimates that about 5,000 households in the EID service area are at or below 20% of County mean incomes. Additionally 6.3% of District residents are estimated to be on public assistance. These populations are the target for this program.

The program is set up to benefit low-income persons who are EID customers. Customers are those that directly pay for their water and wastewater service to EID. So this would include homeowners, and renters, that pay directly for their water and wastewater service and Miwok Bank Tribal members of the Shingle Springs Rancheria. They must live in a single-family dwelling, either a house, apartment or mobile home. Low-income seniors are expected to be a large portion of the eligible customers.

The District will rely on the County Social Services agencies and organizations to refer qualified customers into the program. Customers will certify their eligibility on the application form. A copy of the program application is attached.

The objective of the program is to allow low-income customers to benefit from participation in this water use efficiency program. The customer benefits from the water saved in lower water and wastewater bills. The District benefits from decreased customer water demands, lower water diversions and water treatment costs. The CALFED program benefits from increased water in the South Fork of the American and Consumnes Rivers.

- (4) EID has been implementing a ULF Toilet Rebate Program since 1995. It has processed over 2,000 rebates since then, in a cost efficient and effective manner. The program allows the customer maximum flexibility in choosing a ULF toilet of choice from any supplier and having the toilet installed. The District's involvement is administrative only. This relationship provides for the minimum of overhead expense and a maximum of funds directly benefiting the customer. The administration expense is only 13% of the total program expense.

The program is implemented as follows: The District informs its customers of the availability of the ULF Toilet Rebate Program. We use newspaper advertising, billing inserts, informational booths at the County Fair, Home and Garden Show and Harvest Fair. For this program we will also use focused outreach to low-income and tribal customers. Interested customers contact our Water Efficiency Coordinator who provides verbal information and sends out applications with program criteria. The Coordinator verifies that the caller is a customer. You must be a customer to participate and not be changing out a toilet anyway, i.e., new construction, remodeling, etc. The customer must also be determined to be qualified as low-income by an El Dorado County Social Services Agency. If eligible, the customer then purchases a ULF toilet of their choice, from any supplier and have the toilet installed. They must destroy the old toilet. The customer then submits the dated receipt, with the application, back to EID. The Water Efficiency Coordinator verifies all submitted information, and has the rebate check prepared. The check is then mailed to the customer within 30 days. Most rebate checks are back to the customer within 14 days. The Coordinator then enters the pertinent data into the database for statistical purposes. The required quarterly and annual reports can be generated from this information.

It is projected that 50 toilets per quarter will be rebated. If the interest is higher, the program will have reached its goals faster than the original two years.

5. See Attached (Grant Schedule #1)

(6) EID's existing statistical database can track the number of rebates processed at any time. This will allow instant evaluation of the program and if program goals are being met. The database is a computer program. All statistical information is entered weekly for easy retrieval.

CALFED WATER USE EFFICIENCY PROGRAM									
EL DORADO IRRIGATION DISTRICT									
ULF TOILET REBATE PROGRAM SCHEDULE									
FOR LOW INCOME CUSTOMERS									
	JULY-01	OCT-01	JAN-02	APR-02	JULY-02	OCT-02	JAN-03	APR-03	JULY-03
TASKS	Implement ULF Toilet Rebate Program Includes Initial Outreach and Processing of Rebates	Outreach Evaluated Based on Consumer Participation	Continue Rebate Processing	Continue Rebate Processing	ANNUAL REVIEW OF PROGRAM RESULTS MODIFY APPROACH IF NEEDED	Continue Rebate Processing	Continue Rebate Processing	Continue Rebate Processing	2 ND ANNUAL REVIEW OF PROGRAM RESULTS
DELIVERABLES		1 ST QTR. REPORT	2 ND QTR. REPORT	3 RD QTR. REPORT	1 ST ANNUAL REPORT INCLUDES FISCAL AND PROGRAM RESULTS	1 ST QTR. REPORT	2 ND QTR. REPORT	3 RD QTR. REPORT	FINAL PROGRAM REPORT
PROJECTED REBATES		50 REBATES	50 REBATES	50 REBATES	50 REBATES 200 REBATES FOR FIRST YEAR	50 REBATES	50 REBATES	50 REBATES	50 REBATES 200 REBATES FOR FIRST YEAR 400 REBATES PROGRAM TOTAL
REBATE GRANT COST AND EXPENDITURE PROJECTION		\$7,500	\$7,500	\$7,500	\$7,500 \$30,000 FIRST YEAR TOTAL	\$7,500	\$7,500	\$7,500	\$7,500 \$30,000 2 ND YEAR TOTAL \$60,000 TWO YEAR PROGRAM TOTAL

**OUTREACH, COMMUNITY
INVOLVEMENT AND
INFORMATION TRANSFER**

C. OUTREACH, COMMUNITY INVOLVEMENT & INFORMATION TRANSFER

- (1) The primary focus of this application is to serve low-income customers of EID. Due to financial considerations, they are unable to participate in acquiring water efficient fixtures through the existing ULF rebate program.

It is the intention to inform eligible customers of the availability of the rebates. Outreach will occur through EID's bi-monthly billing inserts to customers, informational booths at the County Fair, Annual Home and Garden Show and Fall Harvest Fair, and through newspaper advertising.

Focused outreach will be made through the County of El Dorado's Social Service Agencies, including Community Services, Department of Social Services and Public Health Department that serves low-income, senior and tribal populations. Special outreach will be made directly to the Miwok Band tribal members at the Shingle Springs Rancheria located within the District. Outreach will also be made to private social caregivers in the community, primarily church organizations serving low-income populations.

- (2) The program will utilize EID's existing established ULF rebate program that has worked so successfully. All implementation mechanisms are in place, so activity can start on the first day funds are available.

(3) Results of the program will be readily available through EID's existing data information system. Statistical reports can be made any time during the two year program and final results of the program will be available to any agency or organization needing the information.

(4) Sample Letter Notifying Agencies of the Grant Proposal

In reply refer to: IO201-567

Date:

Re: Low-Income Customers – ULF Toilet Rebate Program

To Whom It May Concern:

The El Dorado Irrigation District has applied for a Water Use Efficiency Program Grant under the CALFED Bay-Delta program to provide EID low-income customers with ultra low flow (ULF) toilets. The grant would match EID funds for a rebate program to provide the ULF toilet at little or no cost to the eligible customers. The rebate would cover the cost of the ULF toilet and installation. This program would help the customer save water and money from the saved water.

Please contact Dorine Kelly at (530) 642-4051 for more information about this program, which benefits low-income EID customers.

Sincerely,

Dorine Kelly
Water Efficiency Coordinator

**QUALIFICATIONS OF THE
APPLICANTS,
COOPERATORS & ESTABLISHMENT OF
PARTNERSHIPS**

D. QUALIFICATIONS OF THE APPLICANTS, COOPERATORS, AND ESTABLISHMENT OF PARTNERSHIPS

1. The two individuals managing this project are Dorine Kelly, Water Efficiency Coordinator and David Witter, Project Administrator. Dorine has coordinated the District's water efficiency programs for over 20 years. David developed and manages the current EID water efficiency programs that provide for a full urban and agricultural BMP program. Resumes for both are attached.
2. The District will be utilizing the services of social service agencies in El Dorado County for the referral of low-income EID customers into the program. These include El Dorado County Department of Social Services, Department of Community Services, and Public Health Department. The District will also use the Miwok Band at the Shingle Springs Rancheria for referral of tribal members eligible for the program. Private social caregivers, serving low-income persons, such as the local churches, will also be able to refer applicants.
3. The implementation of this program will utilize the existing EID ULF Toilet Rebate Program already in operation. Its success is due in part to its efficient operation, with minimal overhead and high percentage of direct benefits going to the customer. If partnerships can develop from the implementation of this program, that will be encouraged.

COSTS AND BENEFITS

E. Costs and Benefits

(1) Budget Summary

	<u>EID</u>	<u>Grant</u>
Salaries	\$ 8,700	\$ 0
Fringe Benefits	4,400	0
Supplies	200	0
Services	1,000	0
Other Direct Costs:		
Rebates (400)	<u>30,000</u>	<u>60,000</u>
<u>Cost Share Totals</u>	\$44,300	\$60,000

(2) Budget Justification

The labor costs for processing each toilet rebate is \$32.75. This includes administration, promotion and outreach, receive customer inquiries, mail rebate forms, receive completed forms, verify customer status and forms information, prepare check request, mail cover letter and check to customer, enter data into data base and program reporting. This involves our Water Efficiency and Public Information Coordinator and Project Administrator.

Supplies are for new rebate forms designed for this program. Services will cover outreach advertising, printing and postage.

The only cost in the grant is the actual rebate to the customer. EID's existing rebate per toilet is \$75.00 to be matched by the grant rebate of \$150.00. The combined total of \$225.00 is the average ULF toilet purchase cost and installation. Four hundred toilet rebates are provided in the program.

(3) Benefit Summary and Breakdown

Replace 400, 3.5, 5.0 and 7.0 gallon per flush high water using toilets with 1.6 ultra low flow (ULF) toilets. Using the California Urban Water Conservation Council Planning Table for Estimating Water Savings From ULF Toilets, each toilet in the program will save an estimated 32.6 gallons of water per day and 11,899 gallons of water per year. In the first year the 200 toilets will save 2,379,800 gallons or 7.30 acre feet of water. At the end of the second year an additional 200 changed out toilets will combine to save 14.60 acre feet of water per year.

With the average toilet life expectancy of 25 years, these 400 new toilets will save over 118,990,000 gallons of water or over 365-acre feet of water in their lifetime.

Additionally, the reduction in toilet water use is also a savings to the District's wastewater system. This reduces flow to the wastewater treatment facilities and the associated cost savings for treatment.

a. BENEFICIARIES:

1. LOW-INCOME EID CUSTOMERS

This grant will allow their participation in this water efficiency program. They benefit from a ULF toilet at little or no cost, valued at \$225.00 including installation. The value of the water saved for each toilet is 13.20 per year for the 11,899 gallons. Over the 25-year lifetime of the toilet, each customer will save \$320.00 in current water charges. Wastewater savings will be \$25.61 per year or \$640.00 over 25 years. Combined, each customer saves \$38.81 per year and \$970.25 over 25 years for each toilet.

Installation of all 400 toilets will save customers \$5,280.00 per year and \$132,000.00 over 25 years in water charges. Wastewater saving would be \$10,244.00 per year and \$256,100.00 over 25 years. Combined water and wastewater savings are \$15,524.00 per year and \$382,100.00 over 25 years.

2. EL DORADO IRRIGATION DISTRICT

The District benefits from a reduction in water demands, a goal of its Water Efficiency Program. A reduction in demand translates to reduced water diversions from both the South Fork American and Consumnes River systems. Reduced water diversions mean a reduced requirement for water treatment and transmission.

The cost to divert, treat and transmit water in the District costs about \$321.00 per acre foot. The 14.60 acre feet of water saved after two years saves the District \$4,687.00 in water costs. In 25 years, the District would save \$112,350.00.

The District also benefits from reduced wastewater flows to its wastewater treatment plants and the associated costs of treatment. The cost to transmit, treat and discharge or recycle the water costs \$1,393.00 per acre foot. District savings per year for all 400 toilets saves \$20,338.00 in wastewater costs. Over 25 years, it saves \$508,450.00.

3. CALFED PROGRAM

Reductions in water demands over time translate into the more efficient use of water and the need for less water over time. The beneficiary would be the South Fork of the American and Consumnes River systems that eventually benefit the Bay/Delta. The value of water remaining in the river, as a result of the District's water efficiency program, is the California Water Bank water price of \$150.00

per acre-foot. This translates to \$2,190.00 at full installation of the toilets and \$54,750.00 over 25 years.

4. Assessment of Costs and Benefits

(a & b) Analysis Assumptions

- (1) Toilet Water Savings. Water savings for the ULF toilet rebate program used the California Urban Water Conservation Council – Planning Table for Estimating Reliable Water Savings from the Installation of ULF Toilets – July 1992. In EID, there are 2.7 persons per household and our existing rebate program shows the average toilets per household that are changed out is 1.3 per household. The resulting savings are 32.6 gallons per day.

Using the per day savings provides the per year savings of 11,899 gallons. The 25-year figure for toilet life expectancy comes from the same California Urban Water Conservation Council data that estimates the average toilet lasts from 20-30 years.

- (2) Cost of Water for EID Customers. EID customers are charged water on an increasing block rate structure. The first tier water cost of \$0.83 per 100 cubic feet was used as most lower income customers, including seniors, use the first tier amount of 1,500 cubic feet or below. This water cost times the water used gives the value of water saved by the customer.
- (3) Cost of Wastewater for EID Customers. EID customer's wastewater rates are based on the amount of water used. The rate per 100 cubic feet of wastewater is \$1.61. This figure times the reduced wastewater flows gives the value of the wastewater saved.

- (4) Value of Water Saved by EID. The cost of water to purchase, divert, treat and distribute for EID is \$321.00 per acre-foot. This includes water purchases, operations and maintenance, overhead and administration for the entire water system. This figure is used as the value of water.
- (5) Value of Reducing the Flow of Wastewater by EID. The cost to collect, treat and discharge or use as recycled water for EID is about \$1,393.00 per acre-foot. This includes operations and maintenance, overhead and administration. This figure is used as the value of wastewater.
- (6) Value of Water in the River. The value of water left in the rivers was determined by using the State Water Bank price for water as a fair market value. Water was priced at \$150.00 per acre-foot. This value is used in this analysis.

(c) An analysis of the cost and benefits of the total grant program is appropriate. The program has a cost of \$104,300.00. The cost per acre foot after 400 ULF toilets are installed is the water saved (14.60 acre feet) divided by the program cost gives a per acre foot cost of \$7,143.83. Since toilets have an average life of 25 years, it is more appropriate to look at the cost per acre-foot at the end of this period. The 365-acre feet saved in 25 years divided into the program cost now gives a cost per acre-foot of \$285.75. Comparing this figure to the cost of developing new water sources in the foothills of \$400.00 to \$800.00 an acre foot, the comparison is favorable.

(d) See (Grant Table #2)

[illegible]

For Low Income Customers

Quantified Costs and Benefits

[illegible]

MATCHING FUNDS COMMITMENT LETTER

LETTER OF CONCURRENCE
FROM
EL DORADO IRRIGATION DISTRICT